19880916H2_ RADAR

E.5 Radar/Airborne Doppler Radar Scientist (On-Board)

The on-board radar scientist (RS) is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and check lists are contained in the operator's manual supplied to each operator. General supplementary procedures follow. (Check off and initial.)

E.5.1 Preflight

1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).

- 2. Confirm mission and pattern selection from the on-board LPS.
- Select the operational mode for radar system(s) after consultation with the HRD/RS and the on-board LPS.
- 4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

E.5.2 In-Flight

1. Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS, unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO flight director or aircraft commander.

E.5.3 Postflight

- . Complete the summary check lists and all other appropriate check lists and forms.
- 2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.

3. 21 Longwow

- Hand-carry all radar tapes and arrange delivery as follows:
 - a. Outside of Miami to the HRD operations center (FGOC).
 - b. In Miami to MGOC or to AOML/HRD. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO flight director.]

- 4. Debrief at the appropriate operations center (FGOC or MGOC).
- 5. Determine the status of future missions and notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted.

(98809 (GH2_ RADAR

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Radar Scientist Check List						
Flight ID 880916H2						
Aircraft # NG2RF						
Operators <u>Gamache</u>						
Radar Tech. Jarvi						
Number of digital magnetic tapes on board 23 /200/						
Number of tape labels on board Chove It						
Component systems up and checked:						
RDSC DSC1						
Computer DSC2						
DMTR1 DMTR2						
LF R/T#						
TA B/T# _201 DUPPLER						
Time correction between radar time and digital time						
Radar Postflight Summary						
Number of digital tapes used: DMTR 1						
DMTR 2						
Significant recorder down time:						
DMTR 1 Radar LF						
DMTR 2 Radar TA						
Other problems:						

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HRD Doppler Radar Tape Log

Таре				Sour	ce*	300 m 1600 RF, MAX
Number	Time On	Time Off	V	н	S	Comments** (#pulses, scan rate, range)
1	1835	1852			1	Velocity data flakey for now, 18003
2	1854	19+min		N	1	Bis gap Duppler tope probs
3	1950	2009		1.140	1	51 11 1
4	220	19 S.M.	5		1	
3	203540	205600	15	5	2	Doppler set at 2045 Doppler back on at 202630
6	205845	2105	10	55.57	1	tope > topped early to get of
7		2125	151		1	
8	212732	214600			V	
9	214948	2206	17.00		~	
10	N 22 30	- 2250		107	1	Dopplar signal temporarily gou
						i.

*Vertical, horizontal, or full sweep scan.

**Number of pulses averaged (32, 64, 128, 256); scan rate (min, max); range resolution (150 m, 300 m)

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Dopule HRD Radar Down-Time Log

Operator <u>Comach</u> Sheet ____ of ____ Item Time Down Time Up Problem Doppler appeared to be semi in cohevent. For most period 8 light Brief the end wit Tape #10 orples Signel (We recorded data however, In case we can use at

Item List: DMTR1, DMTR2, COMP, RDSC, LF, TA, DSC1, DSC2.

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E.5.1 Preflight

- 1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).
- 2. Confirm mission and pattern selection from the on-board LPS.
- 3. Select the operational mode for radar system(s) after consultation with the HRD/RS and the on-board LPS.
- 4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

E.5.2 In-Flight

1. Operate the system(s) as specified in the operator's manual and as directed by the HRD/RS, unless superseded by directions from the on-board LPS or as required for aircraft safety as determined by the OAO flight director or aircraft commander.

E.5.3 Postflight

- 1. Complete the summary check lists and all other appropriate check lists and forms.
- 2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.
 - 3. Hand-carry all radar tapes and arrange delivery as follows:
 - a. Outside of Miami to the HRD operations center (FGOC).
 - b. In Miami to MGOC or to AOML/HRD. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO flight director.]
 - 4. Debrief at the appropriate operations center (FGOC or MGOC).
 - Determine the status of future missions and notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted.

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Radar Scientist Check List

Flight ID 8809/6 Aircraft # N42.RF Operators Bupee/0 Radar Tach	Gamache					
Radar Tech.	22					
Number of digital magnetic tapes on board						
Number of tape labels on board						
Component systems up and checked:						
RDSC	DSC1					
Computer	DSC2					
DMTR1	DMTR2					
LF	R/T# 102 4F					
ТА	R/T# 201 DOPPLER					
Time correction between radar time and	d digital time					
Radar Postflight Summary						
Number of digital tapes used:	DMTR 1 DMTR 2					
Significant recorder down time:						
DMTR 1	Radar LF					
DMTR 2	Radar TA					

Other problems:

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HRD Radar Tape Log

Flight 88091642 Aircraft N42RF Operator Gamache Sheet 1 of 1

*			Source	Radar	
Tape #	Time On	Time Off	TA	LF	Comments
DITI	181500	1854	1		LE RIT OUT C. 1800 GMT
D2T/			\checkmark		
DITA			~		
DATZ		Veryshurd	~		
D173		2102	\checkmark		reording problems
					all takes before 20352
					problems with data
					system - Jarvi
					repaired it ~ 20452
DITZ	2102	2130	V		
DIT4	2130	2154	V		
DOTH	2154	2221	V		
					stopped and restarted
					2223Z had been
					recording the inspirative
					lower fuselage.
D175	2221	2259	V		stabled seconding

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HRD Radar Down-Time Log

Op	erator		Sheet of		
Item	Time Down	Time Up	Problem		
			- 45 -		
			· · · · · · · · · · · · · · · · · · ·		

Item List: DMTR1, DMTR2, COMP, RDSC, LF, TA, DSC1, DSC2.

880916HZ 1800 GATE Doppler velocities look bad. Groand relocity not stable around Om/s. Al Jarri Working. Also LFR/T justwentout. No replacement on AZ. Letishpe. 1800 Gamache pho to # 4. Out vadar window Doppler # 1 1835-1852 W tmangl eye 1854 + 19min ler # 2 Doppler H & 1950-Doppler H & out af eye. Descending for Missed pass finninger up. it of scat: hard to be 2places

4.6.9720 2035 We have had a Vadar forlup. The soland that hopen when one tope dure trues up. ZO48 There is very of discombobilited of to on tail now, due to polom with Take due Seems alright now. 2059 - Dopula #6 is S. along Texas coast and eyendall. Stopped early lat 2/0/0 to get 1654 er on weight type.)orgh #7 will be pass through en 2108